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ABSTRACT

Nutritional practices of home demonstration club members in Weakley County, Tennessee, are compared with those of nonmembers in this master's thesis. Marked differences appeared in the adequacy of breakfast; cooking vegetables only until tender; inclusion of Vitamin C once a day; following recommended principles of planning meals; buying "enriched" foods; food preparation and buying; and children receiving 4 glasses of milk daily. No significant differences appeared between members and nonmembers in getting vitamins from food sources rather than pills; cooking meats and proteins at low temperatures; including 2 servings from meat group each day; using vegetable oil in preparation; including green or yellow vegetables; and planning meals in advance. Differences between members and nonmembers were in sources of information about food preparation; number or sources of training, and having gardens. The hypothesis that there is no significant difference between home demonstration club members and nonmembers was rejected.
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RESEARCH SUMM

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A Research Summary of a Graduate Study

NUTRITIONAL PRACTICES OF SELECTED HOMEMAKERS
IN WEAKLEY COUNTY, TENNESSEE

Grace S. Prince, Arthur E. Gravatt, Cecil E. Carter, Jr.
and
Robert S. Dotson

AGRICULTURAL EXTENSION EDUCATION

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NUTRITIONAL PRACTICES OF SELECTED HOMEMAKERS
IN WEAKLEY COUNTY, TENNESSEE

by

Grace S. Prince, Arthur E. Gravatt, Cecil E. Carter, Jr.
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Robert S. Dotson

December 1971*

ABSTRACT

The purpose of this study was to compare some nutritional practices of home demonstration club members with those of nonmembers in Weakley County, Tennessee.

The study involved 45 home demonstration club members and 45 nonmembers.

Those selected were interviewed using a schedule which included questions regarding social characteristics of the respondents, certain nutritional practices and other factors affecting nutritional practices.

The null hypothesis stating that there was no significant difference between the social characteristics of the home demonstration club members and the nonmembers was tested with the chi-square test.

The study revealed that members differed significantly from nonmembers in the: number of children living at home; number of persons 60 years of age or more living at home; and location of home.

Members and nonmembers did not differ with regard to: the number of family members living at home; the number of children under 15 years of age; the number of adults living in the home; the major occupation of the head of the household; whether or not the homemaker worked outside the home part-time

*Date of completion of an M.S. degree thesis by Grace S. Prince entitled "Some Nutritional Practices of Homemakers in Weakley County, Tennessee" on which this summary is based.

or full-time, and the occupations of homemakers working outside the home.

The null hypothesis stating that there was no significant difference between the dietary and nutritional practices of members and nonmembers in Weakley County also was tested by means of a diffusion rating scale. Mean scores indicated marked differences for the following practices: adequacy of breakfast; cooking vegetables only until tender; inclusion of one outstanding source of vitamin C a day or two other sources; adults including two glasses of milk or the equivalent a day; following recommended principles of planning meals; buying cereals, flour, meal, breads, macaroni, and spaghetti labelled "enriched"; seeking advice of professionals in meal planning, food preparation and food buying; and children getting four glasses of milk or the equivalent each day.

No significant differences between members and nonmembers were found for the following practices: getting vitamins from food sources rather than pills or supplements; cooking all meat and all protein foods at low temperatures; getting minerals from food sources rather than pills or supplements; including two servings from the meat group each day; generally using some vegetable oil in food preparation each day; including a green leafy or yellow vegetable almost every day; and usually planning meals at least two to five days in advance.

Statistical analysis of the socio-economic characteristics revealed a significant difference between the educational levels and incomes of the home demonstration club members and the nonmembers. The educational median for home demonstration club members was the 10th grade; while the educational median for nonmembers was the 12th grade. The estimated median annual income for home demonstration club members was \$4,436 as compared with a median of

\$5,769 for nonmembers.

A summary of chi-square tests comparing members with nonmembers on other factors affecting nutritional practices revealed that only six of twenty-five tests showed significant differences. The hypothesis stating that there was no significant difference between home demonstration club members and nonmembers in regard to other nutritional practices was partially rejected.

Also, there were significant differences between members and nonmembers on sources of information about food preparation and/or food buying; other sources of information about food preparation or meal planning; number of sources of training; having gardens; how well the interviewer knew respondents; and how familiar the interviewer was with the nutritional levels of respondents.

Implications for Extension programs and recommendations for other uses of the findings were included.

RESEARCH SUMMARY*

I. INTRODUCTION

It was the purpose of this study to compare nutritional practices of home demonstration club members with the nutritional practices of selected nonmembers in Weakley County, Tennessee, for county Extension program planning uses. The data collected via personal interview included characteristics of the respondents, their nutritional practices, and other factors related to their use of the nutritional practices. The study involved 45 home demonstration club members and 45 county-wide nonmembers.

II. MAJOR FINDINGS

The study revealed that members differed very significantly from nonmembers in the: number of children living at home; number of persons 60 years of age or more living in the home; and location of the home. There were 3 of 10 selected social characteristics in which members and nonmembers differed very significantly (.01 level).

Further, members and nonmembers differed (.05 level) on: number of family members living at home; major occupation of head of household; homemaker working outside the home part-time or full-time; and occupation

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of homemaker working outside the home.

The findings (see Appendix tables) indicated a marked difference in use of nutritional practices between members and nonmembers on: eating of an adequate breakfast; cooking of vegetables only until tender; including one outstanding source of vitamin C a day, or two other sources; adults including two glasses of milk or equivalent a day; following recommended principles of planning meals; buying cereal, flour, meal, bread, macaroni and spaghetti labelled "enriched"; seeking advice of professionals in meal planning, food preparation, and food buying; providing children with four glasses of milk or equivalent each day.

The mean scale score differences between members and nonmembers did not appear to be significant for the following practices: getting vitamins from food sources rather than from pills or supplements; cooking meat and all protein foods at low temperatures; getting minerals from food sources rather than from food supplements or pills; including two servings from the meat groups each day; generally using some vegetable oil in food preparation each day; including a green leafy or yellow vegetable almost every day; usually planning meals at least two to five days in advance.

Examination of these mean scores revealed a marked difference in 9 of the 16 items (see Appendix Table 4). The total average diffusion rating for both groups was 4.02 of a possible 5.00. Home demonstration club members had a diffusion rating of 4.21 and other homemakers had a rating of 3.82.

The interview survey findings indicated that Weakley County homemakers compared closely with the National Survey findings regarding dietary deficiencies in vitamins A and C, enriched foods and calcium.

The null hypothesis that there was no significant difference between

the socio-economic characteristics of members and nonmembers was rejected based on the chi-square measures of the educational and income levels.

A summary of chi-square tests comparing members and nonmembers on other factors affecting nutritional practices revealed that only 6 of 25 tests were significant. On this basis, the null hypothesis that there was no significant difference between home demonstration club members and nonmembers in regard to other nutritional practices was partially rejected.

Also, there was a significant difference between members and nonmembers on each of the following: sources of information about food preparation and/or food buying; other sources of information about food preparation and/or food buying; training received in food buying, preparation, or meal planning; number of sources of training; growing of gardens; how well interviewer knew respondent; how familiar interviewer was with nutrition of respondents.

III. IMPLICATIONS

This study revealed that approximately 50 per cent of the home demonstration club members and one-third of the nonmember homemakers who were heads of households were not employed. The study also revealed 40 per cent of the club members to be over 60 years of age. Eighty-four per cent of the club members reported no children. Forty-nine per cent of the nonmember homemakers reported no children. This would indicate the average age of the club members' families living at home to be considerably greater than that of nonmembers.

Thus, there was indicated a need for nutrition education for older people possibly to include emphasis on smaller servings to bring about a

reduction in caloric intake.

Nutrition practices for both home demonstration club members and nonmembers revealed deficiencies in vitamins A and C among nonmembers, and buying foods labelled "enriched" and calcium. This suggests the need for education on how to include such nutrients in the diets and focus on the importance of each, as well as how to preserve nutrients in the care and cooking of foods..

Even though the median educational and income levels of home demonstration club members were lower than those of nonmembers, members were more interested in improving their nutritional status and sought more sources of information and more training in areas of food preparation, meal planning, food buying, and raised more gardens.

This would seem to point to the value of extending the Extension program to additional unreached people, especially younger homemakers.

The home demonstration club members received most of their information on nutrition from home demonstration club meetings and newspapers and university publications; while nonmembers reported the daily newspapers, radio, television and farm magazines as the best sources of information. This would indicate mass media could certainly serve as a means to implement nutrition education among nonmembers in Weakley County.

Further, because of proven benefits of gardens and opportunities shown, more people throughout the country could profitably be encouraged to raise gardens.

The findings of this study also might be useful for other agencies such as: public assistance, food stamp program, Office of Economic Opportunity, community nutrition group, and the senior citizens' program. Finally, a major concern for further study might include a search for ways

of integrating nutrition educational efforts with other institutions and organizations such as public schools, health and welfare agencies, the Office of Economic Opportunity, and community nutrition groups.

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APPENDIX

TABLE I

PER CENTS OF ALL HOMEMAKERS INTERVIEWED AT VARIOUS STAGES OF THE
DIFFUSION PROCESS WITH REGARD TO NUTRITION PRACTICES

Recommended Practice	Total (N=90)		Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using	
	Per Cent		Per Cent		Per Cent		Per Cent		Per Cent		Per Cent		Per Cent	
1. Usually plans meals at least 2 to 5 days in advance	100		3		23		6		2		36		30	
2. Usually follows recommended principles in planning meals	100		3		12		10		1		19		55	
3. Respondent and family members eat an adequate breakfast almost every day	100		1		6		3		1		11		78	
4. In planning meals, includes one outstanding source or two other sources of vitamin C foods each day	100		1		9		3		-		14		73	
5. Includes a green leafy or yellow vegetable almost every day	100		-		8		7		-		16		69	
6. Includes two servings from the meat group each day	100		-		3		-		1		10		85	
7. Adult family members have 2 glasses of milk or equivalent each day	100		3		16		11		2		19		49	
8. Children have 4 glasses of milk or equivalent each day	100		58		3		2		1		6		30	

TABLE I (continued)

Recommended Practice	Total (N=90) Per Cent	Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using Per Cent
		Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	
9. Generally use some vegetable oil in food preparation each day	100	4		9		1		-		19		67
10. Cooks meat and all protein foods at low temperatures	100	2		4		1		-		21		72
11. Cooks vegetables only until tender	100	1		11		2		-		11		75
12. Cooks vegetables in small amount of water	100	1		11		2		6		20		60
13. Buys bread, flour, meal and cereals, macaroni and spaghetti that has "enriched" on the label	100	13		10		-		3		9		65
14. Gets vitamins from food sources rather than from pills or supplements	100	1		2		1		2		15		79
15. Gets minerals from food sources rather than food supplements or pills	100	1		7		3		1		10		78
16. Seeks the advice of professionals in meal planning, food preparation and food buying	100	15		27		12		-		10		36
Total Average	100	7		10		4		1		15		63

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TABLE II

PER CENTS OF ALL HOME DEMONSTRATION CLUB MEMBERS INTERVIEWED AT VARIOUS STAGES OF THE DIFFUSION PROCESS WITH REGARD TO NUTRITION PRACTICES

Recommended Practice	Total (N=45)		Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using	
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
1. Usually plans meals at least 2 to 5 days in advance	100	2	16	7	2	47	26							
2. Usually follows recommended principles in planning meals	100	4	7	4	2	25	58							
3. Respondent and family members eat an adequate breakfast almost every day	100	-	2	-	2	5	91							
4. In planning meals, includes one outstanding source or two other sources of vitamin C foods each day	100	-	4	5	-	11	80							
5. Includes a green leafy or yellow vegetable almost every day	100	-	4	9	0	20	67							
6. Includes two servings from the meat group each day	100	-	4	-	-	13	83							
7. Adult family members have 2 glasses of milk or equivalent each day	100	4	11	9	4	23	49							
8. Children have 4 glasses of milk or equivalent each day	100	76	-	-	-	2	22							

TABLE II (continued)

Recommended Practice	Total (N=45) Per Cent	Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using	
		Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
9. Generally use some vegetable oil in food preparation each day	100	7	4	-	-	-	-	-	-	24	65		
10. Cooks meat and all protein foods at low temperatures	100	4	-	-	2	-	-	-	-	14	80		
11. Cooks vegetables only until tender	100	-	7	-	2	-	-	-	-	13	78		
12. Cooks vegetables in small amount of water	100	-	0	-	2	-	-	4	20	65			
13. Buys bread, flour, meal and cereals, macaroni and spaghetti that has "enriched" on the label	100	7	9	-	-	-	-	2	11	71			
14. Gets vitamins from food sources rather than from pills or supplements	100	2	4	-	-	-	-	4	12	78			
15. Gets minerals from food sources rather than food supplements or pills	100	2	9	-	7	-	-	-	9	73			
16. Seeks the advice of professionals in meal planning, food preparation and food buying	100	9	29	-	4	-	-	-	9	49			
Total Average	100	7	7	-	3	-	-	2	16	65			

TABLE III

PER CENTS OF ALL NONMEMBERS INTERVIEWED AT VARIOUS STAGES
OF THE DIFFUSION PROCESS WITH REGARD TO NUTRITION PRACTICES

Recommended Practices	Total (N=45)		Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using	
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
1. Usually plans meals at least 2 to 5 days in advance	100	5	31	4	2	25	33							
2. Usually follows recommended principles in planning meals	100	2	18	16	-	13	51							
3. Respondent and family members eat an adequate breakfast almost every day	100	2	9	7	-	18	64							
4. In planning meals, includes one outstanding source or two other sources of vitamin C foods each day	100	2	13	2	-	18	65							
5. Includes a green leafy or yellow vegetable almost every day	100	-	11	4	-	14	71							
6. Includes two servings from the meat group each day	100	-	2	-	2	7	89							
7. Adult family members have 2 glasses of milk or equivalent each day	100	2	20	13	-	16	49							
8. Children have 4 glasses of milk or equivalent each day	100	40	7	4	2	9	38							

TABLE III (continued)

Recommended Practices	Total (N=45)		Unaware		Aware		Interested		Plan to Try		Tried and Not Using		Using	
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
9. Generally use some vegetable oil in food preparation each day	100	2		13		2		-		14		69		
10. Cooks meat and all protein foods at low temperatures	100			9				-		29		62		
11. Cooks vegetables only until tender	100	2		16				-		9		71		
12. Cooks vegetables in small amount of water	100	2		13		2		7		20		56		
13. Buys bread, flour, meal and cereals, macaroni and spaghetti that has "enriched" on the label	100	20		11				4		7		58		
14. Gets vitamins from food sources rather than from pills or supplements	100					2		-		18		80		
15. Gets minerals from food sources rather than food supplements or pills	100			5				2		11		82		
16. Seeks the advice of professionals in meal planning, food preparation and food buying	100	22		25		20		-		11		22		14
Total Average	100	6		13		5		1		15		60		

TABLE IV

AVERAGE NUTRITION PRACTICE DIFFUSION RATINGS AND TOTAL AVERAGE RATINGS*

Recommended Nutrition Practice	Total All Homemakers (N=90)	Home Demonstration Club Members (N=45)	Other Homemakers (N=45)
1. Gets vitamins from food sources rather than from pills or supplements	4.64	4.51	4.76
2. Respondent and family members eat an adequate breakfast almost every day	4.49	4.82	4.16
3. Cooks meat and all protein foods at low temperatures	4.47	4.58	4.36
4. Gets minerals from food sources rather than food supplements or pills	4.46	4.24	4.67
5. Includes two servings from the meat group each day	4.43	4.36	4.49
6. Cooks vegetables only until tender	4.38	4.64	4.11
7. In planning meals, includes one outstanding source or two other sources of vitamin C foods each day	4.24	4.58	3.89
8. Generally use some vegetable oil in food preparation each day	4.21	4.24	4.18
9. Cooks vegetables in small amount of water	4.38	4.64	4.11

TABLE IV (continued)

Recommended Nutrition Practice	Total All Homemakers (N=90)	Home Demonstration Club Members (N=45)	Other Homemakers (N=45)
10. Adult family members have 2 glasses of milk or equivalent each day	4.11	4.69	3.53
11. Includes a green leafy or yellow vegetable almost every day	3.95	3.60	4.29
12. Usually follows recommended principles in planning meals	3.84	4.09	3.58
13. Buys bread, flour, meal and cereals, macaroni and spaghetti that has "enriched" on the label	3.78	4.16	3.40
14. Usually plans meals at least 2 to 5 days in advance	3.34	3.56	3.11
15. Children have 4 glasses of milk or equivalent each day	3.12	3.76	2.47
16. Seeks the advice of professionals in meal planning, food preparation, and food buying	2.69	3.18	2.20
Total Average	4.02	4.21	3.82

*In rating scale used: 0 = unaware; 1 = aware of the practice; 2 = interested in the practice; 3 = planning to try the practice; 4 = tried the practice but not now using it; and 5 = using the practice.

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